

Bovine Digital Dermatitis

A new and growing hoof problem in New Zealand.





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Digital dermatitis was first discovered in Italy in 1974. It is a highly infectious bacterial skin disease of the feet of cattle. The bacteria thrive on dirty feet and spread in dirty conditions. It is now the main cause of lameness in housed dairy cattle globally and in South America, South Africa and Australia it is becoming a significant cause of lameness in pasture based systems

In New Zealand the disease was first identified in five herds in 2011. In the following two years a further 40 infected herds were discovered around New Zealand. In 2014/15 a study was conducted in Taranaki and Digital Dermatitis was found in more than 50% of dairy herds tested.

What does it look like?

Most problems (about 80%) are seen in the rear feet. Unlike footrot, the bacteria at first only infect the skin layer and there is no serious swelling and lameness until the disease progresses.

	In its early stage it looks like a raw grey brown ulcer at the back of the foot. Cleaning with water reveals the red surface of the ulcer. It is very sensitive to water pressure or touch
	These ulcers then develop into warts. Some of these may extend between the claws and even through to the front of the foot
	Left untreated may develop a deep-seated stage of the disease with erosion and under running of the heel horn.
	Eventually the lesion may appear to heal naturally or shrink to a very small scar, but may still be a source of infection to other cows.

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Why worry?

Skin digital dermatitis in most countries starts with a very mild form as we are seeing in New Zealand. If the disease isn't proactively controlled, the number of cows affected and severity of lameness increases.

Overseas the bacteria have been found in other foot lesions e.g. white line disease and sole injuries. This causes considerable pain and wounds that fail to heal.

In Chile under similar conditions to New Zealand more than 20% of the white-line injuries get infected and are slow to heal or never heal as the infection goes as deep as the bone.

How do I treat it?

- Tie up the foot.
- Clean the ulcer or wart with water.
- Dry, then spray with an antibiotic spray
- Let the spray dry for 10 – 15 seconds and then apply again.
- Lower the foot and then let the cow stand for 10 – 15 minutes on clean concrete.
- Repeat the treatment for two more days.



How can I control Digital Dermatitis if my herd is infected?

In infected herds, severe outbreaks can be prevented with hygiene to keep the feet clean and with foot-bathing of every animal. Avoid cows standing in slurry whenever possible.

Ongoing control is by use of footbaths with antiseptic solutions on a regular basis.

See www.lamecow.co.nz for details of construction.

Prevent the introduction of infected animals from other infected herds because there are different strains of the bacteria and this may be one way a mild herd infection gets worse with time.



If I don't have digital dermatitis in my herd, how can I prevent it?

Digital dermatitis is usually introduced by bringing infected animals (cows, bull or heifers) onto a farm. Don't graze your animals with animals from an infected herd. Take biosecurity seriously because once digital dermatitis becomes established in a herd it seems impossible to get rid of it.

Install a foot-bath for monthly sanitizing of feet as a safety precaution.

All introduced animals should be checked and foot-bathed before mixing with a clean herd.

Digital dermatitis can be introduced on foot paring equipment used on infected herds (vets' and foot trimmers' equipment). All equipment must be thoroughly cleaned with antiseptic between your herds if you own more than one.

Can I check my own herd?

Yes, you can do this yourself or ask your veterinarian to help. We recommend that you check your herd at least twice every year. You can easily check at milking time without lifting any feet so it doesn't even slow down the milking time. For a video on the screening technique go to www.lamecow.co.nz If you see even a small suspicious lesion ask your vet to take a sample to check if it is the disease. Record the tag of every suspicious cow so that you can follow up with treatment.

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